CHEMPARTNER
DEDICATED TO LIFESCIENCE

PRECLINICAL PROSTATE CANCER MOUSE MODELS

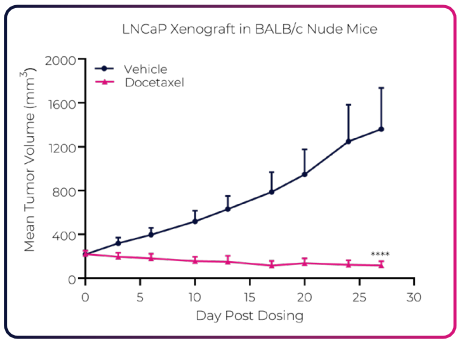
- Prostate cancer is the 4th most common cancer worldwide and it is the 2nd most common cancer in men.
- 1 in 8 men will be diagnosed with prostate cancer during their lifetime. Prostate cancer risk can vary, based on age, race/ethnicity, and other factors for example family history, diet, inherited gene changes.
- Prostate tumors have significant heterogeneity which affects treatment efficacy.
- Current treatment options include hormonal intervention (for hormone dependent cancers), surgical intervention, radiotherapy, chemotherapy, biological therapy, immunotherapy and watchful waiting.
- Many hormone dependent cancers become castrate-resistant after 1-3 years leading to castration resistant prostate cancer (CRPC) and an increased risk of metastatic disease disseminating to the lymph nodes and bones.

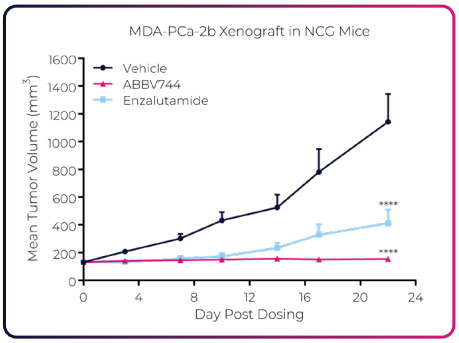
ChemPartner offers several well validated prostate cancer mouse models allowing clients to gain translational insights into their prostate cancer research.

MODEL	XENOGRAFT TYPE	CELL LINE ORIGIN	EXPRESSION MARKERS	RESPONSE TO ANDROGENS?
22RV1	• Sub Q • Sub Q (castrated)	Human prostate carcinoma epithelial cell line derived from a xenograft that was serially propagated in mice after castration-induced regression and relapse of the parental, androgen-dependent CWR22 xenograft	PSA+ PAP- AR+	Yes (weak response)
DU145	• Sub Q	Human prostate carcinoma cell line derived from metastatic site (brain)	PSA- PAP+ (very weak) AR-	No
LNCaP	• Sub Q	Human prostate carcinoma cell line derived from metastatic site (left supraclavicular lymph node)	PSA+ PAP+ AR+ ER+	Yes
X1LNCaP (LNCaP derivative)	• Sub Q • Orthotopic			
X2LNCaP (LNCaP derivative)	• Sub Q			
MDA-PCa-2b	• Sub Q	Human prostate adenocarcinoma cell line derived from metastatic site (bone)	PSA+ PAP- AR+	Yes
PC-3	• Sub Q • Bone metastasis model	Human prostate carcinoma cell line derived from metastatic site (bone)	PSA- PAP- AR-	No
VCaP	• Cell line available for use	Human prostate cancer cell line derived from a vertebral bone metastasis from a patient with hormone refractory prostate cancer. It was passaged as xenografts in mice then cultured in vitro	PSA+ PAP+ AR+	Yes (partial)
NCI-H660	• Cell line available for use	Human prostate small cell carcinoma cell line	PSA- PAP- AR-	No

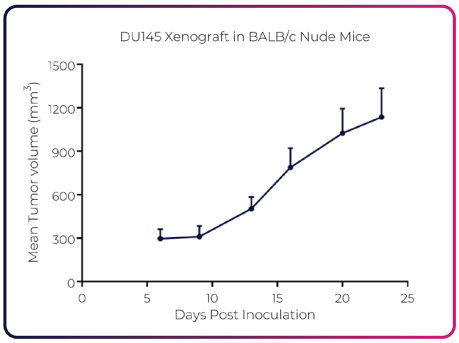
SUBCUTANEOUS MOUSE MODELS

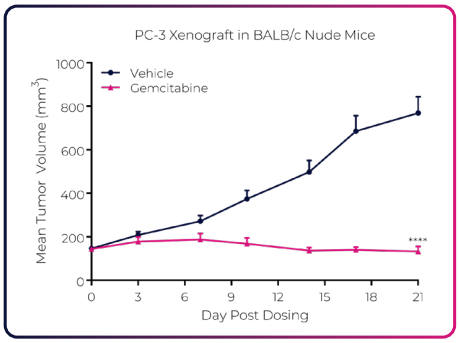
ANDROGEN DEPENDENT



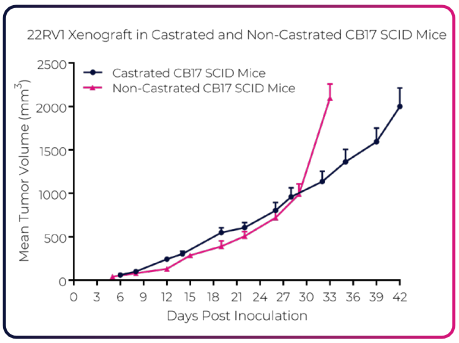


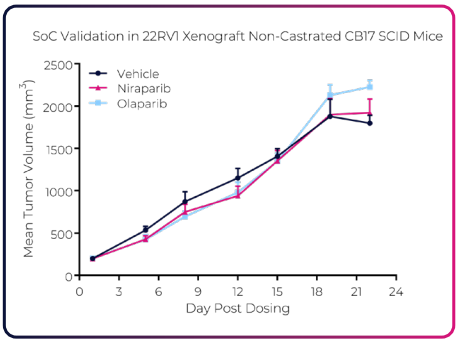
ANDROGEN INDEPENDENT





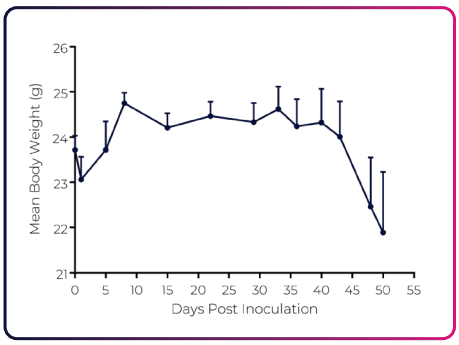
22RV1 MODEL

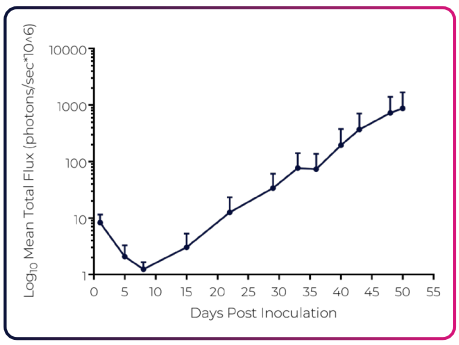


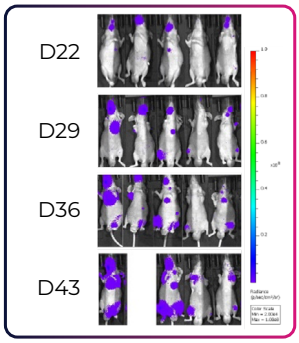


BONE METASTASIS AND ORTHOTOPIC MODELS

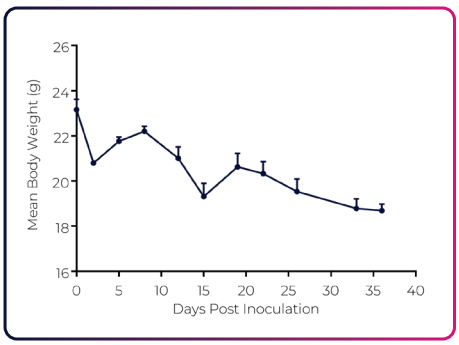
PC-3-LUC VENTRICULAR INJECTION BONE METASTASIS MODEL

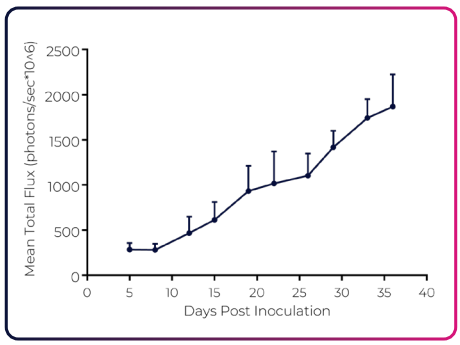


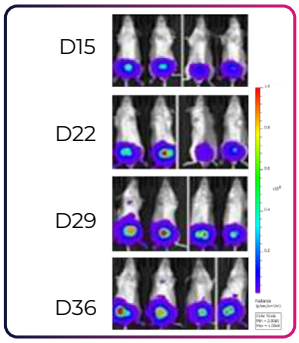




X1LNCAP-LUC ORTHOTOPIC MODEL







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